## AMENDMENTS TO THE CLAIMS

Claim 1 (Original): A method of determining the sequence of a nucleic acid template, said method comprising:

i) generating and redox labeling sets of complementary sequencing fragments of said template where the sets of fragments terminating with the four different bases A, C, G, or T are each label labeled with a redox-active label that has an oxidation state distinct and distinguishable from the redox states of the labels labeling the other sets of fragments;

ii) separating said sequencing fragments;

iii) performing cyclic voltammetry on said sequencing fragments to produce a cyclic voltammogram for the redox-labeled sequencing fragments;

iv) detecting the signal for each redox-active label at a phase angle out of phase with respect to the optimum phase angle for said redox-active label, where a drop-out of signal at said phase angle indicates the presence of said redox-active label.

Claim 2 (Original): The method of claim 1, wherein said dropout is as compared to the signal present at the phase common signal.

Claim 3 (Original): The method of claim 1, wherein said fragments are generated with a termination method employing primers, and terminators, and the primers or the terminators are labeled with said redox-active labels.

Claim 4 (Original): The method of claim 3, wherein said fragments are generated with dideoxy terminators.

Claim 5 (Original): The method of claim 4, wherein said fragments are generated with dideoxy terminators selected from the group consisting of 2',3'-dideoxyguanosine-5'-triphosphate, 7-deaza-2',3'-dideoxyguanosine-5'-triphosphate, 2',3'-dideoxyadenosine-5'-triphosphate, 2',3'-dideoxythymidine-5'-triphosphate, and 2',3'-dideoxycytidine-5'-triphosphate.

Claim 6 (Original): The method of claim 1, wherein nucleoside triphosphates used for chain elongation are labeled with said redox-active labels.

Claim 7 (Original): The method of claim 1, wherein said redox-active labels are independently selected from the group consisting of a porphyrin, an expanded porphyrin, a contracted porphyrin, a metallocene, a linear porphyrin polymer, and a porphyrin array.

Claim 8 (Original): The method of claim 7, wherein said redox-active labels comprise a ferrocene.

Claim 9 (Original): The method of claim 8, wherein said ferrocene is selected from the group consisting of an alkyl ferrocene, a ferrocene acetate, a ferrocene carboxylate, and an alkyl ferrocene dimethylcarboxamide.

Claim 10 (Original): The method of claim 1, wherein said redox-active labels comprise a porphyrinic macrocycle substituted at a β- position or at a *meso*- position.

Claim 11 (Original): The method of claim 1, wherein said voltammetry is performed at a single electrode.

Claim 12 (Original): The method of claim 1, wherein said voltammetry utilizes a sinusoidal waveform.

Claim 13 (Original): The method of claim 1, wherein said cyclic voltammetry comprises converting voltammetric data into a time or frequency domain to provide a frequency spectrum for a redox-active label.

Claim 14 (Original): The method of claim 12, wherein said cyclic voltammetry comprises converting voltammetric data into a time or frequency domain to provide a frequency spectrum for a redox-active label.

Claim 15 (Original): The method of claim 13, wherein said converting comprises performing a Fourier transform.

Claim 16 (Original): The method of claim 13, wherein said cyclic voltammetry comprises selecting voltammetric data at a second or higher harmonic frequency.

Claim 17 (Original): The method of claim 16, wherein said cyclic voltammetry comprises selecting voltammetric data at a third or higher harmonic frequency.

Claim 18 (Original): The method of any one of claims 1, 13, or 16, wherein said cyclic voltammetry comprises selecting voltammetric data at a phase angle about 45 degrees to about 90 degrees out of phase with the optimum phase angle for the redox-active label whose presence is to be detected.

Claim 19 (Original): The method of claim 18 wherein said cyclic voltammetry comprises selecting voltammetric data detecting at a phase angle closest to 90 degrees out of phase with the optimum phase angle for the redox-active label whose presence is to be detected.

Claim 20 (Original): The method of claim 1, wherein separating said sequencing fragments comprises electrophoretically separating said sequencing fragments.

Claim 21 (Original): The method of claim 1, wherein separating said sequencing fragments comprises chromatographically separating said sequencing fragments.

Claims 22- 67 (Canceled).